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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/712,890	ADDINGTON ET AL.
Office Action Summary	Examiner	Art Unit	
	Phillip H. Nguyen	2191	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>13 April 2007</u>.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-58</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-58</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This action is in response to the amendment filed on 4/13/2007. Claims 14, 32,

47, 51, 52 and 57 are amended. Claims 1-58 remain pending and have been

considered below.

Specification

2.   The amendment filed on 4/13/2007 overcomes the rejection to the specification

of previous action. Therefore, the rejection is withdrawn.

Claim Rejections - 35 USC § 112

3.   The amendment filed on 4/13/2007 overcomes the rejection to claim 47 of

previous action. Therefore, the rejection is withdrawn.

Response to Arguments

4.   Applicant's arguments with respect to claims 1-58 have been considered but are

moot in view of the new ground(s) of rejection.

Applicant asserts on page 19 of the amendment that Hellerstein has no

disclosure of the SDS storing any information about a particular target system itself.

Examiner respectfully disagrees with the allegation as argued. Examiner in his

previous action pointed out some locations in Hellerstein that are relevant to the

limitation in the instant application. Hellerstein discloses (col. 5, lines 25-28 "**A global

software package repository 206 is used as follows. Once a new software**

package and its description are received, the package is stored in this archive

and is then available.") Hellerstein further discloses (see at least col. 7, lines 60-62

"description file (e.g., service, role, software name, version, resource pre-requisite

list, service pre-requisite list.) One of ordinary skill in the art can recognize that the

description file contains information about a particular target machine. SDS is using the

description file to prepare a package that is suitable for target machine in that region

(see col. 8, lines 25-27). Another words, SDS generates a software package for a

particular target machine that fits the description file. For example a target machine that

has enough resources (e.g., CPU, memory, disk, TCP, DNS, etc.) for running the

software package. Each machine has different kind of CPU, different amount of

memory, disk and so forth, depending on the manufacturer and model of the machine.

Even if the global software package repository 206 does not maintain information about

a particular target system. One of ordinary skill in the art can configure this global

software package repository to maintain (store) such information for a particular target

machine.

Examiner is entitled to give claim limitations their broadest reasonable

interpretation in light of the specification. See MPEP 2111[R-1] Interpretation of Claims-

Broadest Reasonable Interpretation. During patent examination, the pending claims

must be 'given the broadest reasonable interpretation consistent with the specification.'

Applicant always has the opportunity to amend the claims during the prosecution and

broad interpretation by the examiner reduces the possibility that the claims, once

issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,

550-51 (CCPA 1969).

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6.   Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

- Regarding claim 1, recites "a data processing system" in the body of the claim. It

  is unclear to the Examiner whether this data processing system is the

  certification entity or the software manufacturer or another entity. The

  specification does not provide any written description or support for this data

  processing system. Furthermore, "transferring the host software file from the

  data processing system to the host file database" is also unclear to the Examiner

  whether "the host software file" is referred to the host software file of the software

  manufacture or from the certification entity or a different host software file. There

  is no connection between "software manufacturer", "certification entity" and

  "processing system". For examining purposes, Examiner assumes the claim has

  two different parts.

  o   Part 1:

- providing the host software file from the host software

  manufacturer to a certification entity;

- testing the operation of the host software file by the certification

  entity;

- certifying the host software file for operation in a host

  o Part 2:

  - establishing a first connection from a data processing system to a

    host file database;

  - transferring the host software file from the data processing system

    to the host file database;

  - receiving confirmation of receipt of the host software file from the

    host file database;

  - identifying an enhanced services system to receive the host

    software file;

  - establishing a second connection from the host file database to the

    enhanced services system; and

  - transferring the host software file from the host file database to the

    enhanced services system.

  Claims 2-13 directly or indirectly depend on claim 1, and therefore, suffer the

  same deficiency.

- Regarding claim 14, recites "the second data processing system comprising a

  database storing <u>host software</u> to be downloaded to a host" in the body of the

claim. It is unclear to Examiner whether the "host software" is the host software from the software manufacturer or from the certification entity or new host software from the first data processing system. The claim language shows no relationship between ("host software manufacturer" and "first data processing system") or ("certification entity" and "first data processing system"). This indicates that the host software transferred from the first data processing system to the second processing system is new host software. Furthermore, it raises a question whether the certifying the host software process relates to the method of downloading the software. For examining purposes, Examiner interprets this claim in two parts.

- o Part 1:

   - producing host software by a host software manufacturer to control a host;

   - providing the host software to a certification entity;

   - receiving a certification indication from the certification entity indicating the host software is compatible with the host

- o Part 2:

   - establishing a connection from a first data processing system to a second data processing system, the second data processing system comprising a database for storing host software to be downloaded to a host;

- authenticating the first data processing system to the second the

  data processing system; transferring a copy of the host software

  comprising an host protocol file and a host profile file to the second

  data processing system; and

- receiving a confirmation indication from the second data processing

  system of the receipt of the host software.

Claims 15-22 directly or indirectly depend on claim 14, and therefore, suffer the

same deficiency.

- Regarding claim 37, recite "the database", there is insufficient antecedent basis

  for this limitation in the claim. It is unclear to Examiner whether this database is

  referred to host file database or is new.

- Regarding claim 41, recite "the protocol file", there is insufficient antecedent

  basis for this limitation in the claim. It is unclear to Examiner whether this

  protocol file is referred to the host protocol file or is new.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   Claims 49 and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by

Hellerstein et al. (United States Patent No.: US 7,013,461 B2).

As per claim 49:

Hellerstein discloses:

-       a data processing system transmitting a host software file (see at least FIG. 2

        "**SDS 205**"), the data processing system comprising a database receiving and

        storing the host software file and maintaining an association of the host software

        file with a host manufacturer, the database further maintaining an association of

        the host software file with a specific host model of the host manufacturer (see at

        least col. 5, lines 25-28 "**A global software package repository 206 is used as**

        follows. Once a new software package and its description are received, the

        package is stored in this archive and is then available"; also see at least col.

        7, lines 60-62 "**description file (e.g., service, role, software name, version,**

        resource pre-requisite list, service pre-requisite list)" – This indicates that the

        global software package repository 206 is maintained (stored) information for a

        particular target (e.g., service, role, resource pre-requisite...)), the database

        storing a certification file associated with the host software file (**the "description**

        file" is considered at certification file associated with software package),

        the database associating the host software file with an enhanced services

        system (see at least col. 11, lines 1-3 "**extracts the package from the global**

        repository and distributes the package to the region"); and

- a communications network, operatively connected to the data processing system,

  receiving the host software file from the data processing system and transferring

  the host software file to the enhanced services system (see at least col. 11, lines

  57-58 "**a communication network to form the distributed computing**

  environment").

As per claim 50:

Hellerstein further discloses:

- wherein the communications network comprises the Internet ("**the**

  communication network may be public (e.g., Internet)" col. 11, line 58).

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 1-22, 26, 31-40 and 58 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hellerstein et al. (United States Patent No.: US 7,013,461 B2), in

view of Ma et al. ("Framework for Third Party Testing of Component Software") in 2001.

As per claim 1:

Hellerstein discloses:

- Producing a host software file by a host software manufacturer (see at least col. 5, lines 26-27 **"once a new software package and its description are received, the package is stored in this archive..."** – This indicates that the software package is produced by a software developer/manufacturer and has been transferred to the global software repository 206 for distributing);

- establishing a first connection from a data processing system to a host file database (see at least col. 5, lines 25-27 **"A global software repository 206 is used as follows. Once a new software package and its description are received, the package is stored in this archive..."** – there is existed a connection between the global software repository and the data processing system, where the software package is created and processed);

- transferring the host software file from the data processing system to the host file database (see at least col. 5, lines 25-27 **"A global software repository 206 is used as follows. Once a new software package and its description are received, the package is stored in this archive..."**)

- receiving confirmation of receipt of the host software file from the host file database (**It is inherent in order to ensure that software package is successfully received by the region server or not. Even if it is not inherent, it would have been obvious to have a confirmation to indicate that the software package is successfully transferred**);

- identifying an enhanced services system to receive the host software file (see at least col. 5, lines 21-22 "**determines appropriate region servers for distributing software package**");

- establishing a second connection from the host file database to the enhanced services system (see at least **FIG. 2 – a connection must be established in order to distribute the package to the region server**); and

- transferring the host software file from the host file database to the enhanced services system (see at least col. 5, line 22 "**distributes package to region server**").

Hellerstein does not explicitly disclose:

- providing the host software file from the host software manufacturer to a certification entity;

- testing the operation of the host software file by the certification entity;

- certifying the host software file for operation in a host.

However, Ma discloses:

- providing the host software file from the host software manufacturer to a certification entity (see at least "**Figure 1. Overview of the process**" – testing process);

- testing the operation of the host software file by the certification entity (see at least "**Figure 1. Overview of the process**" – testing process);

- certifying the host software file for operation in a host (see at "**Figure 1. Overview of the process**").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Hellerstein's approach to allow third-party certification testing. One would have been motivated to allow third-party certification testing because third-party certification is a safe approach that buyers should trust when dealing with component software (see at least the abstract in Ma).

As per claim 2:

Hellerstein and Ma further disclose:

- regarding claim 1, the combination of Hellerstein and Ma disclose all the limitations of the based claim as outlined above. Furthermore, Hellerstein in combination with Ma further disclose:

    o wherein certifying the host software file for operation in a host comprises certifying the host software file for execution on a host associated with a specific host manufacturer and a model associated with the specific host manufacturer (**Each created software package is for a specific machine (model) that has an appropriate amount of resource. Therefore, third-party testing certifies a software package for execution on a specific target machine**).

As per claim 3:

Hellerstein further discloses:

- wherein the data processing system is operated by the certification entity or the host software manufacturer (**Data processing system is where creating and processing software packages. Therefore, it is inherent in Hellerstein's approach**).

As per claim 4:

Hellerstein further discloses:

- wherein the host software includes at least one of a host protocol file, host data file, host profile file, service data file, or host configuration message set file (see at least col. 7, lines 60-62 "**description file (e.g., service, role, software name, version, resource pre-requisite list, service pre-requisite list)**".

As per claim 5:

Hellerstein further discloses:

- wherein the host data file contains software objects for execution in the host (see at least col. 4, lines 32-34 "**a software package 201 is a unit of physical containment for a collection of software components forming a service or an end-user application**").

As per claim 6:

Hellerstein further discloses:

-   wherein the host profile file indicates one of a plurality of resources incorporated

    in the host, wherein at least one of the resources processes digital video signals

    (see at least col. 7, lines 60-62 "**description file (e.g., ...resource pre-**

    requisites..." – One of ordinary skill in the relevant art would recognize that CPU

    can process digital video signals).

As per claim 7:

Hellerstein does not explicitly disclose:

-   wherein the host profile file is used to create a user-interface in a configuration

    message set creation system that determines at least one host configuration

    message.

However, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to modify Hellerstein's approach to create a user interface

based on the description file. One of ordinary skill in the art would have been motivated

to create a user interface based on the description file because it allows

user/administrator to select the services, resources and version of software package for

specific target machine.

As per claim 8:

Hellerstein does not explicitly discloses:

-   authenticating the data processing system to the host file database prior to

    transferring the host software file (**An authentication check must be**

performed (e.g., username and password) whenever someone accesses a database to verify that someone is who they claim they are. Although, Hellerstein does not explicitly disclose this limitation, it is inherent in Hellerstein's approach. Even if it is not inherent, it would have been obvious to one of ordinary skill in the relevant art to do so for security purposes).

However, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to recognize that authentication is a important step for verifying someone who is trying to access the database. Therefore, one would have been motivated to perform an authentication check to ensure that someone is who they claim they are for security purposes.

As per claim 9:

Hellerstein does not explicitly disclose:

- authenticating the host file data base to the enhanced services system prior to transferring the host software to the host file database (**An authentication check must be performed (e.g., username and password) whenever someone accesses a database to verify that someone is who they claim they are. Although, Hellerstein does not explicitly disclose this limitation, it is inherent in Hellerstein's approach. Even if it is not inherent, it would have been obvious to one of ordinary skill in the relevant art to do so for security purposes).**

However, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to recognize that when service distribution server 205

accesses the global software repository, it must perform a authentication check to make

sure it connects to the right database. Therefore, one would have been motivated to

perform this step for security purposes.

As per claim 10:

Hellerstein does not explicitly disclose:

- recording an indication in the host file database of the transfer of the host

  software file to the enhanced services system.

However, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to recognize that at the end of every transaction, there

should be a confirmation to indicate whether a successful or failure transaction.

Therefore, one would have been motivated to modify Hellerstein's approach to record a

transaction indication for each package to ensure the new software package

successfully received by the region server.

As per claim 11:

Hellerstein further discloses:

- recording a second indication in the host file database of the receipt of the host

  software file from the data processing system (see at least col. 9, lines 21-23

  "determine if software package is already present in the global software

repository. That is the system checks whether this is a new package" – The

software package itself is an indication or it stores an indication in the global

software repository to indicate that the software package is already presented in

the database).

As per claim 12:

Hellerstein further discloses:

- maintaining an enhanced services system communication file (see at least col. 6,

    line 29 **"an enterprise service repository 208"**) comprising an address

    associated with the enhanced services system (see at least col. 6, lines 29-32

    "An enterprise service repository 208 contains for every region: (i) the

    services a region provides: determined by querying, for every service,

    whether a appropriate server is located within the region"), communication

    parameters for use in transferring the host software file to the enhanced services

    system (see at least col. 6, lines 36-37 **"Also, communication services**

    (network connectivity, name services, etc.) are listed in this repository"),

    and authentication data associated with the enhanced services system (see at

    least col. 6, lines 32-33 **"the services that are available in a region"**).

As per claim 13:

Hellerstein further discloses:

- wherein the step of establishing a second connection from the host file database
  to the enhanced services system comprises establishing a second connection
  from the host file database to the enhanced services system using the
  communication parameters maintained in the communication file (see at least
  col. 6, lines 36-37 "**Also communication services (network connectivity,
  name services, etc.) are listed in this repository**" – this indicates that the
  network connectivity stored in this repository is use for communication).

As per claim 14:

Hellerstein discloses:

- producing host software by a host software manufacturer to control a host (see at
  least col. 5, lines 26-27 "**once a new software package and its description are
  received, the package is stored in this archive...**" – This indicates that the
  software package is produced by a software developer/manufacturer and has
  been transferred to the global software repository 206 for distributing);

- establishing a connection from a first data processing system to a second data
  processing system, the second data processing system comprising a database
  storing host software to be downloaded to a host (see at least col. 5, lines 25-27
  "**A global software repository 206 is used as follows. Once a new software
  package and its description are received, the package is stored in this
  archive...**" – there is existed a connection between the global software

repository and the data processing system, where the software package is

created and processed);

- authenticating the first data processing system to the second the data processing

  system (**An authentication check must be performed (e.g., username and**

  password) whenever someone inputs data into a database to verify that

  someone is who they claim they are. Although, Hellerstein does not

  explicitly disclose this limitation, it is inherent in Hellerstein's approach.

  Even if it is not inherent, it would have been obvious to one of ordinary skill

  in the relevant art to do so for security purposes);

- transferring a copy of the host software comprising an host protocol file and a

  host profile file to the second data processing system (see at least col. 5, lines

  25-27 "**A Global software repository 206 is used as follow. Once a new**

  software package and its description file are received, the package is

  stored in this archive"); and

- receiving a confirmation indication from the second data processing system of

  the receipt of the host software (see at least col. 9, lines 21-23 "**determine if**

  software package is already present in the global software repository. That

  is the system checks whether this is a new package" – The software package

  itself is an indication or it stores an indication in the global software repository to

  indicate that the software package is already presented in the database).

Hellerstein does not explicitly disclose:

- providing the host software to a certification entity;

- receiving a certification indication from the certification entity indicating the host

    software is compatible with the host;

However, Ma discloses:

- providing the host software to a certification entity (see at least "**Figure 1.**

    Overview of the process" – testing process);

- receiving a certification indication from the certification entity indicating the host

    software is compatible with the host (see at least "**Figure 1. Overview of the**

    process" – testing process);

Therefore, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to modify Hellerstein's approach to allow third-party

certification testing. One would have been motivated to allow third-party certification

testing because third-party certification is a safe approach that buyers should trust when

dealing with component software (see at least the abstract in Ma).

<u>As per claim 15</u>:

Hellerstein further discloses:

- wherein the host protocol file comprises at least one host specific protocol

    message used by an enhanced services server to interact with the host (see at

    least col. 8, lines 28-29 "**message content may include: service name,**

    package name, override flag, package binary").

As per claim 16:

Hellerstein discloses:

- wherein the host profile file indicates a host type comprising a specific host

  manufacturer and a model associated with the specific host manufacturer (see at

  least col. 7, lines 60-62 "**description file (e.g., services, role, software name,**

  version, resource pre-requisite list services pre-requisite list").

As per claim 17:

Hellerstein discloses:

- wherein the host protocol file contains a version number associated with the host

  protocol file (see at least col. 7, lines 60-62 "**description file (e.g., services,**

  role, software name, version, resource pre-requisite list services pre-

  requisite list").

As per claim 18:

Hellerstein and Ma further disclose:

- regarding claim 14, the combination of Hellerstein and Ma disclose all the

  limitations of the based claim as outlined above. Furthermore, Hellerstein in

  combination with Ma further disclose:

  o wherein the certification indication includes an identification associated

    with the host, the identification further associated with a specific host

    manufacturer and a model of the specific host manufacturer (**Each**

created software package is for a specific machine (model) that has

an appropriate amount of resource. Therefore, third-party testing

certifies a software package for execution on a specific target

machine).

As per claim 19:

Hellerstein and Ma further disclose:

- regarding claim 14, the combination of Hellerstein and Ma disclose all the

limitations of the based claim as outlined above. Furthermore, Hellerstein in

combination with Ma further disclose:

  o wherein the host file database records the certification indication (see

  Hellerstein at least col. 9, lines 27-31 "**read package description...each**

  package is assumed to be accompanied by information listing the

  service, software and hardware dependencies of the package"), and

  the confirmation indication (see at least col. 9, lines 21-23 "**determine if**

  software package is already present in the global software

  repository. That is the system checks whether this is a new

  package" – The software package itself is an indication or it stores an

  indication in the global software repository to indicate that the software

  package is already presented in the database).

Neither Hellerstein nor Ma disclose:

- host file database records a date and time of receipt of the host software.

However, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to recognize that it is appropriate to record date and time

of the receipt software package in the database. One would have been motivated to

record date and time of receiving the software package for helping determine whether

the software package is a new package or an old one and for documentation purposes.

As per claim 20:

Hellerstein further discloses:

- where the host software file contains software objects capable of being executed

   in a consumer electronics host wherein the consumer electronics host processes

   digital multi-media signals (see at least col. 4, lines 32-34 "**a software package**

   201 is a unit physical containment for a collection of software components

   forming a service or an end-user application" – One of ordinary skill in the art

   can recognize that CPU is cable of processing digital multi-media singals).

As per claim 21:

Hellerstein further discloses:

- identifying an enhanced services system to receive the host software (see at

   least col. 10, lines 33-34 "**determine which regions qualify as targets for**

   software distribution");

- establishing a connection from the second data processing system to the enhanced services system (**connection between SDS and Region must be established in order to transfer package. Also see FIG. 2**); and

- transferring the host software to the enhanced services system (see at least col. 11, lines 1-3 "**extracts the package from the global software repository and distributes the package to the region**").

As per claim 22:

Hellerstein and Ma further disclose:

- regarding claim 14, the combination of Hellerstein and Ma disclose all the limitations of the based claim as outlined above. Furthermore, Hellerstein in combination with Ma further disclose:

  o where the step of transferring the host software to the enhanced services system further includes transferring a copy of the certification indication (**when SDS 205 transfers software package to the region, it also include in the software package the certification indication in order for the region to determine which target machines have an appropriate resource required by software package**).

As per claim 26:

Hellerstein does not discloses:

- transmitting an indication of certification of the host software file;

- verifying in the enhanced services system that the indication of certification has

been received prior to transmitting a copy of the host software to the host.

However, Ma discloses the use of third-party to certify the component software (see

at least the Title "**Framework for Third Party Testing of Component Software**").

Therefore, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to modify Hellerstein's approach to allow third-party

certification testing. One would have been motivated to allow third-party certification

testing because third-party certification is a safe approach that buyers should trust when

dealing with component software (see at least the abstract in Ma). Further more,

Hellerstein in combination with Ma further disclose the above limitations. The indication

of certification must be include with the software for the region server to identify that the

software package is a certified package before distributing the software package to the

host.

As per claim 37:

Hellerstein discloses:

- mmunicating a software module associated with a brand and model of a

consumer electronics host device to a host file database (see at least col. 7, lines

59-63 "**introduce new software package (SP) and its description (e.g.,**

service, role, software name, version, resource pre-requisite list, service

pre-requisite list) is entered in the service distribution server 205 and are

stored in the global software repository 206");

- communicating the software module from the database to an enhanced services

   system (see at least col. 8, lines 20-21 "**software distribution from SDS 205 to**

   region server 203"), the enhanced services system comprising a server and

   database (see at least col. 8, line 45 "**role repository 204**"; also see **FIG. 2**), the

   server operatively connected to a cable distribution network (see at least col. 8,

   line 31 "**Region Sever**"; also see **FIG. 2**);

- detecting activation of a host, the host associated with the host manufacturer and

   further associated with a model of the host manufacturer (see at least col. 8, lines

   31-38 "**determine if each of the end point machines (the potential targets)**

   has an appropriate amount of resources (CPU, RAM, disk space, swap

   space, etc.). Determine if the target has an appropriate version of the

   (correct) operating system. Determine if the target has appropriate pre-

   requisites (i.e., are the required services present)" – the target machine must

   be activated in order for the region server to determine which one is appropriate

   for the update), the host connected to the cable distribution network (see at least

   col. 11, line 56 "**a communication network**"; also see col. 11, line 60 "**type of**

   network is not critical " – it would have been obvious to use any of network in

   Hellerstein's system); and

- transmitting the software module from the server to the host (see at least col. 8,

   lines 52-53 "**software distribution from RS 203 to targets 202**").

Hellerstein does not explicitly disclose:

- communicating a certification indication associated with the software module to the host file database, the host file database recording the certification indication in association with the software module; and

However, Ma discloses the use of third-party to certify the component software (see at least the Title "**Framework for Third Party Testing of Component Software**").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Hellerstein's approach to allow third-party certification testing. One would have been motivated to allow third-party certification testing because third-party certification is a safe approach that buyers should trust when dealing with component software (see at least the abstract in Ma et al.). Furthermore, Hellerstein in combination with Ma further disclose the above limitations. A certification indication associated with the software package must be include in the package to ensure that the software has been certified before distribute to the host.

As per claim 38:

Hellerstein further discloses:

- wherein detecting activation of a host is initiated by the receipt of a message from a host transmitted in a two-way cable network (see at least col. 3, lines 30-32 "**may be connected to computer system 110 through network 120 and may exchange data, information and instructions with computer system 110**" – This is two way communication).

As per claim 39:

Hellerstein further discloses:

- recording in an enhanced services server an indication associated with

    transmitting the software module from the server to the host (see at least col. 8,

    line 50 "**updateable flag**").

As per claim 40:

Hellerstein further discloses:

- executing the software module on a processor in the host (see at least col. 8,

    lines 65-66 "**installation on targets launched, post installation procedures**

    and tests are done").

As per claim 58:

Hellerstein discloses:

- means for communicating a host software file from a host software manufacturer

    to a host file database (**It is inherent in order to received the software**

    package at global software repository 206), the host software file containing

    an indication of certification for operation in the host;

- means for communicating the host software file from the host file database to an

    enhanced services system (see at least col. 5, lines 14-22 "**service distribution**

    server 205,...distributes package to region server") the enhanced service

system comprising a server and database for storing the host software file (see

at least **FIG. 2 – "region server and role repository 204"**);

- means for triggering the download of host software from the database to the host

   (see at least FIG. 2 - "**Administrator requests software package**

   distribution"); and

- means for communicating the host software file from the server to a host using a

   cable distribution network (see at least col. 8, lines 63-64 "**software distribution**

   from RS 203 to targets 202").

However, Hellerstein does not explicitly disclose:

- the host file containing an indication of certification for operation in the host.

However, Ma discloses the use of third-party to certify the component software (see

at least the Title "**Framework for Third Party Testing of Component Software**").

Therefore, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to modify Hellerstein's approach to allow third-party

certification testing. One would have been motivated to allow third-party certification

testing because third-party certification is a safe approach that buyers should trust when

dealing with component software (see at least the abstract in Ma et al.). Furthermore,

Hellerstein in combination with Ma further disclose the above limitations. A certification

indication associated with the software package must be include in the package to

ensure that the software has been certified before distribute to the host.

11.   Claims 23-25, 27-36 and 41-48 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hellerstein et al. (United States Patent No.: US 7,013,461 B2).

As per claim 23:

Hellerstein discloses:

-   receiving a host software file at a host file database, the host software file for

    configuring a host (see at least col. 5, lines 25-27 "**Once a new software**

    package and its description are received");

-   maintaining a first list of at least one enhanced services system (see at least col.

    5, lines 20-21 "**consults policy database 209 before every installation (i)**

    determines appropriate region servers fro distributing software package"),

    the enhanced services system further associated with a destination address and

    the host software file (see at least col. 4, lines 46-49 "**A region server 203**

    maintains the region role repository 204 for one region answers queries of

    a service distribution server 205, determines whether targets have

    appropriate resources");

-   maintaining a second list of the destination address associated with a set of

    communication parameters the set of communication parameters including

    authentication information (see at least col. 6, lines 29-38 "**an enterprise service**

    repository 208 contains for every region: (i) the services a region provides:

    determined by querying, for every service, whether an appropriate server is

located within the region...Also, communication services (network

connectivity, name services, etc.) are listed in this repository");

- establishing a communications path between the host file database and the

  enhanced services system, the communications path using the destination

  address (see at least col. 6, lines 36-38 **Also, communication services**

  (network connectivity, name services, etc.) are listed in this repository" –

  this indicates that the network connectivity stored in this repository is use for

  communication); and

- authenticating the host file database to the enhanced services system using in

  part the set of communications parameters (**An authentication check must be**

  performed (e.g., username and password) whenever someone accesses a

  database to verify that someone is who they claim they are. Although,

  Hellerstein does not explicitly disclose this limitation, it is inherent in

  Hellerstein's approach. Even if it is not inherent, it would have been

  obvious to one of ordinary skill in the relevant art to do so for security

  purposes);

- transmitting the host software file from the host file database to the enhanced

  services system (see at least col. 8, lines 20-21 "**Software distribution from**

  SDS 205 to region server 203");

- receiving a confirmation of the receipt of the host software file from the enhanced

  services system (**It is inherent in order to ensure that software package is**

  successfully received by the region server or not. Even if it is not inherent,

it would have been obvious to have a confirmation to indicate that the

software package is successfully transferred).

Hellerstein does not explicitly disclose:

- receiving a confirmation of the receipt of the host software file from the enhanced

  services system; and

- recording an indication of the confirmation of the receipt of the host software file,

  the indication recorded in the host file database.

However, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to recognize modify Hellerstein's approach to include a

confirmation to indicate the successful or failure of a transaction. One would have been

motivated to provide an indication to SDS 205 to indicate the successful or failure of

transferring software package to make sure that the region server will get the software

package. Furthermore, the SDS must store the indication form documenting purposes.

As per claim 24:

Hellerstein further discloses:

- storing the host software file in a second database located at the enhanced

  services system (see at least col. 8, line 46 "**a role repository 204**"; it maintains

  information such as "**service, role, associated software package(s), and**

  updatable flag" see col. 8, lines 50-51);

- transmitting a copy of the host software stored in the second database to a host (see at least col. 8, lines 52-53 "**software distribution from RS 203 to target 202**");

- receiving a confirmation of receipt of the software from the host (see at least col. 8, line 67 "**Installation results are gathered at region server**"); and

- recording an indication in the second database regarding the software downloaded to the host (see at least col. 8, line 50 "**updateable flag**").

As per claim 25:

Hellerstein further discloses:

- tnsmitting the host software file from the enhanced services system to the host (see at least co. 8, lines 52-53 "**software distribution from RS 203 to target 202**"); and

- executing the host software in the host (see at least col. 8, lines 65-66 "**installation on targets launched, post installation procedures and tests are done**").

As per claim 27:

Hellerstein further discloses:

- wherein the transmitting of the host software file from the host file database uses the Internet (see at least col. 11, line 58 "**the communication network may be public (e.g., Internet)**").

As per claim 28:

Hellerstein further discloses:

- wherein the host software file comprises at least one from the group of host

    protocol file, host profile file, host data file, and host configuration message set

    file (see at least col. 7, lines 60-62 **"description file (e.g., service, role,**

    software name, version, resource pre-requisite list, service pre-requisite

    list)" – this file can be a host profile file).

As per claim 29:

Hellerstein discloses:

- wherein the step of establishing a communications path between the host file

    database and the enhanced services system is determined in part based on a

    time indicated in the communication parameters (see at least col. 6, lines 64-67

    "software updates should only occur between 11 PM and 6 AM. A software

    package is distributed to region servers if their region fits the distribution

    profiles").

As per claim 30:

Hellerstein discloses:

- wherein the host software file contains messages for interacting with a host

    associated with a specific host manufacturer and a model of the specific host

manufacturer ("**message content may include: service name, package name,**

"override" flag, package binary" col. 8, line 28-29).

As per claim 31:

Hellerstein discloses:

-    receiving a host software file associated with a specific host manufacturer and a

     model associated with the specific host manufacturer (see at least col. 7, lines

     59-63 "**introduce new software package (SP) and its description (e.g.,**

     service, role, software name, version, resource pre-requisite list, service

     pre-requisite list) is entered in the Service Distribution Server or SDS 205");

-    determining an enhanced services system to receive the host software file (see

     at least col. 8, lines 10-12 "**determine all the region servers 203 whose**

     service profiles match the service that is going to be provided by the new

     package");

-    establishing a connection from the enhanced services system to a host file

     database (see at least **FIG. 2 – a connection must be established in order to**

     distribute the package to the region server); and

-    authenticating the enhanced services system to the host file database (**An**

     authentication check must be performed (e.g., username and password)

     whenever someone accesses a database to verify that someone is who

     they claim they are. Although, Hellerstein does not explicitly disclose this

     limitation, it is inherent in Hellerstein's approach. Even if it is not inherent,

it would have been obvious to one of ordinary skill in the relevant art to do

so for security purposes);

- transferring the host software from the host file database to the enhanced

  services system (see at least col. 8, lines 20-21 "**Software distribution from**

  SDS 205 to region server 203").

Hellerstein does not explicitly disclose:

- recording an indication of the date and time associated with the transferring of

  the host software to the enhanced services system.

However, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to recognize that it is appropriate to record date and time

of the receipt software package in the database. One would have been motivated to

record date and time of receiving the software package for helping determine whether

the software package is a new package or an old one and for documentation purposes.

As per claim 32:

Hellerstein further discloses:

- where the host software comprises a host protocol file and a host profile file (see

  at least col. 7, lines 60-62 "**description file (e.g., service, role, software name,**

  version, resource pre-requisite list, service pre-requisite list)" – **this file can**

  be a host profile file).

As per claim 33:

Hellerstein further discloses:

- wherein transferring the software uses a file transfer protocol over the Internet
  (see at least col. 6, line 13 "**Transmission Control Protocol (TCP)... TCP/IP
  version 2.3**").

As per claim 34:

Hellerstein further discloses:

- wherein the step of determining an enhanced services system to receive the host
  software file further comprises the steps of:
    o retrieving a file associating an enhanced services system with a plurality of
      host types (see at least col. 8, line 44 "**retrieval of target roles**"; see at
      least col. 8, lines 46-51 "**a role repository 204 maintains information
      such as service, role, associated software package, and updateable
      flag**"), each host type comprising a specific host manufacturer identifier
      and a model identifier associated with the specific host manufacturer (see
      at least col. Lines 32-34 "**each of the end point machines (the potential
      targets) has an appropriate amount of resources (CPU, RAM, disk
      space, swap space, etc.)**" – each machine model has different
      amount of resources); and
    o determining if the host software file received matches one of the plurality
      of host types associated with the enhanced services system (see at least
      col. 8, lines 32-34 "**determines if each of the end point machines (the**

potential targets) has an appropriate amount of resources (CPU,

RAM, disk space, swap space, etc.)").

As per claim 35:

Hellerstein further discloses:

- wherein the host software file is tested for operation on a specific host

   manufacturer and host manufacturer's model (see at least col. 8, lines 25-27

   "SDS prepares a package based on dependency requirements, that is

   suitable for target machines in that region").

As per claim 36:

Hellerstain further discloses:

- storing the host software file in a second database located at the enhanced

   services system (see at least col. 8, line 46 **"a role repository 204"**; it maintains

   information such as **"service, role, associated software package(s), and**

   updatable flag" see col. 8, lines 50-51);

- transmitting a copy of the host software stored in the second database to a host

   (see at least col. 8, lines 52-53 **"software distribution from RS 203 to target**

   202");

- receiving a confirmation of receipt of the software from the host (see at least col.

   8, line 67 **"Installation results are gathered at region server"**); and

- recording an indication in the second database regarding the software

    downloaded to the host (see at least col. 8, line 50 "**updateable flag**").

As per claim 41:

Hellerstein discloses:

- loading a host protocol file associated with a type of host (see at least col. 7,

    lines 59-62 "**Introduce new software package. A new software package (SP)**

    and its description (e.g., service, role, software name, version, resource

    pre-requisite list, service pre-requisite list is entered in the service

    distribution server" **– The description file includes host protocol file**

    because it stores information about configuration settings, hardware

    drivers, software,...);

- loading a host profile file associated with the type of host (**The description file**

    also includes host profile file because it stores information about the

    functionality of the machine);

- receiving a user input to determine the at least one service related parameter

    (see at least FIG. 2 - "**administrator request software distribution**" **–**

    administrator inputs request for software distribution);

- using the protocol file and the at least one service related parameter to generate

    a host configuration message (see at least col. 8, lines 28-29 "**message may**

    include: service name, package name, override flag, package binary"); and

- associating the host configuration message with the type of host (see at least col. 8, lines 32-38 "**determine if each of the end point machine has an appropriate amount of resources (CPU, RAM, disk space, swap space, etc.). Determine if a target has an appropriate version of the (correct) operating system, pre-requisites (i.e., are the required services present)**").

Hellerstein does not explicitly disclose:

- processing the host profile file to provide a user-interface for selecting at least one service related parameters associated with a service.

However, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Hellerstein's method to create an user-interface based on the description file. One of ordinary skill in the art would have been motivated to create a user interface based on the description file because it would allow the user/administrator to select the services, resources, and version, the software package is required for specific target machine.

As per claim 42:

Hellerstein further discloses:

- wherein the host configuration message is a statically created configuration message (see at least col. 8, lines 25-29 "**SDS prepares a package , based on dependency requirements, that is suitable for target machines in that region. Typical message content may include: service name, package name, override flag, package binary**" – this is statically created by SDS).

As per claim 43:

Hellerstein does not explicitly disclose:

- wherein the host configuration message is a dynamically created configuration

  message.

However, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to recognize that the message is created by SDS 205

based on dependency requirements, that is suitable for target machine. It might be

created statically or dynamically. One of ordinary skill in the art would have been

motivated to create the message dynamically whenever it need one. This way, it does

not waste space and memory.

As per claim 44:

Hellerstein further discloses:

- wherein the type of host is associated with a host manufacturer and a model of

  the host manufacturer (**each type target machine has different type of**

  resources and is associated with a machine manufacture and each model

  has different type of resources for a specific target machine. This is why

  region performs determinations to find out which target machine matches

  with software package's description).

As per claim 45:

Hellerstein further discloses:

- wherein the host protocol file comprises a plurality of protocol messages

    associated with the type of host (**It is inherent because Hellerstein's system**

    as plurality of target machines).

As per claim 46:

Hellerstein further discloses:

- wherein the host profile file contains a list of capabilities associated with the type

    of host ("**description (e.g., ... resource pre-requisite list,...)**" col. 7, line 61;

    "**resources (CPU, RAM, disk space, swap space, etc.)**" col. 8, line 33-34).

As per claim 47:

Hellerstein further discloses:

- wherein storing the configuration message comprises storing the host

    configuration message in a file in an enhanced services system (**the message**

    must stored in a file before transmitted to region server).

As per claim 48:

Hellerstein further discloses:

- wherein the configuration message is an executable command on a processor in

    a host (**It is inherent in order to perform installation on the target machine**).

12.   Claims 51-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hellerstein et al. (United States Patent No.: US 7,013,461 B2), in view of LaJoie et al.

(United States Patent No.: US 6,772,433 B1).

As per claim 51:

Hellerstein does not explicitly disclose:

-    a cable distribution network operatively connected to the enhanced service

system at a headend of the cable distribution network capable of receiving the

host software file from the enhance service system.

However, LaJoie disclose:

-    a cable distribution network operatively connected to the enhanced service

system at a headend of the cable distribution network capable of receiving the

host software file from the enhance service system (see at least col. 2, lines 35-

46 "**cable television system include a cable headend, at least one fiber**

transport, distribution hub, on hybrid fiber coax plant...the cable headend

provides programs, services, and overall system control of the cable

television system....").

Therefore, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to modify Hellerstein's approach into LaJoie's cable

television system. One of ordinary skill in the art would have been motivated to modify

because they are both teaching software distribution.

As per claim 52:

Hellerstein discloses:

- an enhanced services system operatively connected to a communications

    network, receiving and storing at least one host software file in a database

    (see FIG. 2 – "Region server 203"), wherein the database stores at least one

    host address associated with the host software file (see at least col. 4, lnes

    46-51 "role repository 204...determines whether targets have appropriate

    resources (either by querying them on demand or by maintaining a database

    with their configuration setting").

Hellerstein does not explicitly disclose:

- a cable distribution network having a headend, operatively connected to the

    enhanced services system at the headend receiving the host file from the

    enhanced services system and transmitting the host software file to a host

    associated with the host address

However, LaJoie disclose:

- a cable distribution network having a headend, operatively connected to the

    enhanced services system at the headend receiving the host file from the

    enhanced services system and transmitting the host software file to a host

    associated with the host address (see at least col. 2, lines 35-46 "**cable**

    television system include a cable headend, at least one fiber transport,

    distribution hub, on hybrid fiber coax plant...the cable headend provides

programs, services, and overall system control of the cable television

system....").

Therefore, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to modify Hellerstein's approach into LaJoie's cable

television system. One of ordinary skill in the art would have been motivated to modify

because they are both teaching software distribution.

As per claim 53:

Hellerstein further discloses:

- wherein the database further stores a host type associated with the host software

   file ("**a database with their configuration settings**" col. 4, line 50-51), the host

   type comprising a host manufacturer identifier and a model identifier of the host

   manufacturer (**the configuration file identifies what type (model) of target**

   machine is required for the software package).

As per claim 54:

LaJoie further disclose:

- a host connected to the cable distribution network, the host receiving the host

   software file (see at least col. 2, lines 43-45 "**the set-top terminals provides**

   interfaces processing, and storage capability in a subscriber's home to

   facilitate the implementation of advanced television and online services").

As per claim 55:

LaJoie further discloses:

-   wherein the cable distribution network supports two-way communication (see at

    least col. 2, lines 4-5 "**two-way communication between a cable services**

    provider and cable service subscriber").

As per claim 56:

Neither Hellerstein and LaJoie disclose:

-   wherein the cable distribution network is a one-way communication network.

However, it would have been obvious to one having an ordinary skill in the art at the

time the invention was made to recognize that one-way network is well known in the

relevant art. One would have been motivated to use one-way network in either

Hellerstein or LaJoie because it is well known.

As per claim 57:

Hellerstein further discloses:

-   wherein the database further stores an indication of the host software file

    transmitted to the host ("**updateable flag**" col. 8, line 50).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Phillip H. Nguyen whose telephone number is (571)

270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM -

3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PN
6/15/2007

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